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AN OPERATIONAL ANALYSIS OF THE PERSIAN GULF WAR

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FOREWORD

A lot has been written about the brilliant execution of operations in the Persian Gulf War. Operation DESERT SHIELD and Operation DESERT STORM were superb examples of the application of military power in support of national policy. Vital U.S. and international interests were protected and the goals of the international coalition were achieved. However, DESERT STORM was much more than the wide-flanking maneuver that General H. Norman Schwarzkopf termed his "Hail Mary" play. For the United States, it was the nexus of many factors that developed the armed forces of the previous several decades.

A key factor in the operational success was a renaissance in the study of the operational art in the senior service schools of each of the armed services. An understanding of the operational level of war provided the needed linkages between the national policy, security strategy, military strategy, and tactics embodied in the warfighting doctrine and concepts developed over some 20-30 years. Though much has been written about the Gulf War, little has specifically addressed the practice of operational art and some of the key execution decisions relating to that practice.

This report examines operational art in the Persian Gulf War from two unique perspectives. First, the author participated in most of the events described. Second, the author considers not only the U.S. viewpoint but also describes how some of Saddam Hussein's actions were analyzed as they applied to the various situations. The author's purpose was to provide a better understanding of this unique application of the operational art in what some have termed the last campaign of the cold war. He concludes that one of the major lessons learned from Operations DESERT SHIELD/STORM was that wholesale changes in the doctrine, education, and training that contributed significantly to the operational success are not required.



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PREFACE

In February 1991, people throughout the world watched their televisions to see the final events of the Gulf War unfold. They marveled at the video arcade-like magic of the precision munitions delivered by stealth aircraft and terrain-hugging cruise missiles. But they were truly captivated by the aura of the bear-like commander of the coalition forces as he vividly described the details of his operational plan which he coined as a "Hail Mary" play, an end run to victory.

After a year of reflection, we know that plan was anything but the act of desperation connoted by the "Hail Mary" label from football parlance. It was a thorough and calculated military campaign designed to achieve specific operational and strategic objectives in support of national security policy and goals. Furthermore, it was a superb example of the use of military power to provide the conditions for victory that ultimately can only be achieved through the political process.

Several decisions that contributed immeasurably to the military success in the Persian Gulf were made decades before. Each of them have been chronicled to one degree or another in recent books on the Gulf War. The first of these decisions resulted from the critical self-evaluation of the profession following the end of the Vietnam conflict. It led to an intellectual renaissance and the development of a professional education system for officers and NCOs that produced the leaders and decision makers that planned and prosecuted Operations DESERT SHIELD and STORM.

The second decision founded the National Training Center and the training and evaluation system developed around it that included Red Flag in the Air Force and Twenty-nine Palms for the Marine Corps. These facilities and the training systems developed around them by all the services prepared the forces that executed the plans and orders of the leaders of the Persian Gulf conflict.

A third decision designated Third U.S. Army as the U.S. Army component (USARCENT) for U.S. Central Command (USCENTCOM). It embodied the spirit of the Total Army at one of the highest levels of command and created a hybrid organization charged with providing theater logistical support and sustainment for all contingencies in the USCENTCOM area of responsibility. One of the key aspects of the Total Army concept was the CAPSTONE program that governed the Active and Reserve components' preparation and training for their mission in a particular theater. A detailed synopsis of these decisions and their impact are provided at the appendix.

The following report presents an operational analysis of the Persian Gulf War. Its purpose is to contribute to a more complete understanding of the strategy, campaign plan and key decisions that went into the war's planning and execution. The perspective related here is one of a planner and strategist on the USCENTCOM staff who was involved in the process that created the strategy and plans during the 2-year period leading up to the conflict and throughout the successful campaign. Many of the thoughts and opinions expressed here were part of critical discussions and internal papers developed within the staff prior to and during the crisis.

The analysis examines the conflict from both sides. In this case, very little is known about the strategy and planning of Saddam Hussein and the Iraqi military. Consequently, the Iraqi point of view presented reflects a composite of the estimates from within the coalition staffs and events reported throughout the crisis. The estimates provided the basis for coalition planning and execution decisions and the products that flowed from those decisions as events occurred. Therefore, what you will read is one insider's interpretation, as a trained observer, of the events that unfolded during the crisis and his judgement on their value and significance then and for the future.

AN OPERATIONAL ANALYSIS OF THE PERSIAN GULF WAR

STRATEGIES

Without full disclosure of the Iraqi war plans and an ability to read Saddam Hussein's mind, one can only examine the Iraqi strategy in light of overt actions taken from July 1990 through April 1991. Nevertheless, these actions provide some interesting insights for discussion and frame a strategy that was ultimately executed.

Regardless of his intentions, a substantial argument can be made that Saddam miscalculated coalition actions, and these miscalculations played the major part in both the development and failure of his strategy. Coalition forces were mindful of the worst case consequences of a strategy they believed Saddam had adopted and the coalition strategy and plans were developed to ameliorate those consequences while achieving the coalition's political objectives.

Iraq.

Experts throughout the world failed to foresee the events of July and August 1990. Even Saddam's closest neighbors and one-time allies regarded his threats as saber rattling and political maneuvering to relieve mounting economic and political pressures on his regime following the Iran-Iraq War. What then was Saddam's strategy when he invaded Kuwait? How was it modified after the world's reaction to his blatant aggression?

It appears that Saddam's strategy included both short- and long-term components with a very complex interaction among those concepts. In the short run, the invasion of Kuwait served several immediate political and economic purposes. First, it provided a means of reducing the enormous debt incurred during the Iran-Iraq War. Seizing Kuwaiti currency reserves, exploiting Kuwait's oil wealth, and intimidating other creditors

into canceling remaining debt obligations would accomplish one immediate objective. Second, an armed expedition would employ Iraqi military forces who were under pressure at home to reduce their size by discharging soldiers into a depressed, debt-ridden economy caused by Saddam's squandering of national wealth on arms and military-related production facilities. More importantly, from a long-term perspective, it appears that Saddam believed that the punitive expedition would provide a lever for increased influence throughout the Arab world. It would punish an arrogant monarchy for its damaging oil policies and rectify a disputed boundary imposed by a former colonial power, while galvanizing support within the Arab world for the use of force to solve other issues such as the Israeli-Palestinian question.

From this perspective, one could conclude that Saddam never intended to invade Saudi Arabia. This is a supportable argument considering the magnitude of the undertaking and marginal capabilities previously displayed by Iraqi forces that invaded Iran. Yet, force dispositions on August 3 and for several weeks afterwards did not provide conclusive evidence to support this argument. It was not until the quantity of coalition forces in the region approached the projected force levels for Operation DESERT SHIELD that coalition leaders had a high level of confidence in the defense of Saudi Arabia and determined that its security was no longer in question. By the same token, one may hypothesize that Iraq could accomplish its political and strategic objectives without actual invasion of Saudi Arabia. Through intimidation, once his capability to project power in this direction was demonstrated, Saddam could coerce the uncooperative Saudi regime. This hypothesis seems more consistent with Saddam's previous behavior in the region.

How, then, did Saddam's strategy change in reaction to the deployment of superior coalition forces in support of Operation DESERT SHIELD and the global reaction to Iraq's invasion of Kuwait? Instead of a strategy of regional intimidation to reduce debts and assert leadership throughout the Arab world, Saddam elected to pursue a strategy of confrontation with Saudi Arabia and Western infidels invited to assist in defending

the Muslim holy land. The object was to consolidate his gains through historical justification and oppose Western meddling in affairs of the Arab nation. In doing so, he calculated that he could gain support for his actions throughout the Arab world by mobilizing the mass population. His trump card was the political and material support of the Soviet Union.

Saddam miscalculated on two accounts: 1) he underestimated the ability of the United States to form an anti-Iraq coalition, and 2) he underestimated the ability of the U.S.-led coalition to energize the United Nations to obtain sanctions against Iraq. These efforts solidified the response of both regional and global Arab and Muslim states and neutralized any possible political or material support from the USSR. Iraqi response to these political and economic consequences was to increase its intransigent rhetoric and deploy massive manpower to consolidate the defense of its territorial expansion into Kuwait.

The focus of the strategy moved from the punishment of an arrogant monarchy to pledges of a holy war against infidels in the Muslim holy land. Saddam elected to employ several key operations to accomplish his objectives: a strong defense to retain the captured territory, occupation forces to destroy the economic and cultural foundations of Kuwait, strategic operations to fracture the coalition by widening the conflict to include Israel, and a worldwide terrorist campaign to raise the cost to coalition homelands.² His became a strategy aimed solely at deterring coalition military response against his invasion of Kuwait while consolidating territorial and political gains in the Arab world by attacking Saudi Arabian decisions to permit Western forces on Saudi soil. To do so, his strategy focused on garnering Arab nationalist support and came complete with hostages as an insurance policy against coalition action until defenses in Kuwait could be established and the Arab masses mobilized.

In war, Saddam planned a strategy of attrition following a doctrine that was a replay of his Iran-Iraq War experience. It consisted of a positional defense with an objective of inflicting maximum casualties on coalition forces, especially those of the United States and its European allies. Iraq would win by

exacting a cost high enough to cause the coalition to reconsider further fighting and negotiate a settlement that allowed Iraq to retain its territorial gains. This would satisfy domestic demands while raising Iraq's leadership position in the Arab nation by successfully opposing the superpower that was instrumental in contributing to Israel's existence and security.

U.S.-Led Coalition.

The strategy of the coalition was to isolate and contain Iraq while applying international political and economic sanctions that would force the withdrawal of Iraqi forces and restore the legitimate government of Kuwait. The coalition worked through the United Nations to isolate Iraq politically and establish sanctions to isolate it economically. Coalition military forces would be used to control sea and air access to Iraq while voluntary means would limit overland commerce. A coalition defense of the Arabian Peninsula was emplaced to deter and/or prevent further aggression while maintaining free world access to the region's petroleum resources. Victory for the coalition forces would be achieved as long as the flow of oil continued, Iraqi forces were withdrawn from Kuwait and the legitimate government of Kuwait was restored. In a larger sense, the coalition followed the strong U.S. lead, which ultimately aimed to define "a new world order" addressing the future role of the United Nations and to reinforce the rule of law in peaceful resolution of conflict in this region and throughout the world.

Several key political factors influenced the strategy: cohesion of the coalition, support of the USSR, and responsiveness of the United Nations. Cohesion within the coalition was critical, especially among the key regional players such as Saudi Arabia, the smaller Gulf states, Egypt, Turkey, and Syria. This cohesion provided legitimate political and economic counterbalances to Saddam's efforts to mobilize the Arab masses and color the conflict as a Muslim holy war. It also provided the foundation for military action in support of the political and economic sanctions by insuring basing, manpower, and funding.

Support for the UN positions by the Soviet Union not only neutralized material support for the majority of Iraq's sophisticated military forces and equipment, but it also removed the threat of political roadblocks within the UN Security Council, that only could be imposed by the world's other nuclear superpower. Political actions and economic sanctions would require timely and robust action in the UN in order to be effective. Moreover, these actions could mark a defining moment for the evolving role of the UN. Effectiveness at this time might provide a spark for greater roles in the future.

Beyond the political and economic objectives of the coalition, there was also the ideological objective of reinforcing the role of the UN in preventing interstate aggression and punishing any world community member violating the sovereignty of a neighbor. The strategy pursued by the coalition was one of consensus and balance.³ Consensus in the UN was used to coalesce domestic and international opinion while a diplomatic offensive, economic sanctions, and information campaigns painted military power as a reasonable means to meet coalition goals.

OPERATIONAL PLANNING IN THE THEATER OF OPERATIONS

Iraq.

Once again, Iraq's precise operational plans were and still are not known. One can only deduce the plan from Iraqi force dispositions and their reactions to coalition moves. Because of the rapid, devastating success of the coalition in the initial battles, the execution of any precise Iraqi operational plan was never evident. However, based on Saddam's actions and carping rhetoric, it appears that he continued to believe that the coalition's strategic center of gravity was U.S. domestic and world opinion. To influence that opinion and gain his political and strategic goals, he shifted efforts toward a strategy of attrition.

To execute this strategy, he selected the operational objective of inflicting the maximum number of casualties on coalition forces, focusing primarily on the armies of the United

States and Saudi Arabia. From initial estimates it appears that Saddam chose the Kuwait-Saudi Arabia border, and subsequently the interior of Kuwait City, as the locations and sequence for inflicting these massive casualties.

Along the border, a complex network of defensive positions, minefields, fire trenches, and engineer obstacles were strengthened by mobile tactical reserves of regular Iraqi Army armor and mechanized infantry forces. Oil fields were mined and booby-trapped to create an inferno while the resulting dense smoke would blind coalition forces and mask the movements of Iraqi reserves. Republican Guard forces formed operational reserves capable of inflicting additional casualties in a counteroffensive designed to force coalition forces back through the blazing, defensive complex.

The absence of defensible terrain along the border demanded massive construction of obstacles and positions. Any desire to seal the lengthy border required a huge manpower pool and large stocks of material and equipment. For the most part, these had to be provided from stockpiles in Iraq and transported to the extremes of a limited infrastructure. Also as a result of these distances, large quantities of consumable stocks would be required in Kuwait to support a force estimated at 42+ divisions situated at the end of a highly vulnerable distribution network operated by a logistical system accustomed to static or set-piece operations and possessing suspect flexibility.

The defense of Kuwait City was a different story. Because of its political importance and close proximity to the Persian Gulf coast, Kuwait City appeared to Saddam as a logical candidate for a amphibious operation. Consequently, it provided an excellent opportunity to inflict severe casualties and foil a very complex operation. Fortifications and weapons emplacements were developed along the best stretches of beach. Forward units were well bunkered and reaction forces were placed to thwart an incursion. Within Kuwait City, elite Republican Guard infantry forces and Iraqi Special Forces were dispersed to inflict maximum casualties on coalition forces in house-to-house battles throughout the heavily mined and booby-trapped urban area.

The Iraqi defensive force in Kuwait exhibited a modus operandi resembling an instant replay of its experience in the recent Iran-Iraq War. It was both defensive and occupational. The Iraqi defensive doctrine is manpower intensive. It requires a forward line of defense consisting of light infantrymen in prepared positions surrounded by a complex network of obstacles and thickened by heavy artillery and blocked by mobile forces aimed to annihilate the attacker in fire pockets. In this instance, the requirement was met largely by conscripts and reserve forces. As a result, the foundation of the defense rested upon the least professional and motivated force. Many had to be kept in place by the threat of execution from Republican Guard and Regular Force battalions interspersed with the conscript organizations.

The occupational component of the force consisted of elite Republican Guard and Special Forces. All of the forces in Kuwait were under the command of the appointed Governor of Kuwait, Ali Hassan Al-Majid, Saddam's paternal cousin. He was known for his ruthless purges of the military during the Iran-Iraq War and associated with the alleged use of chemical weapons to "pacify" the Kurds in previous uprisings.⁴ His appointment made it apparent that the major force ingredients of the defensive doctrine would be coercion of the most poorly trained and motivated forward defensive units combined with ruthless urban operations designed to maximize the advantage of occupying the city. However, in a strategy of attrition that demanded inflicting maximum casualties on the coalition to affect domestic and world opinion, forward forces were an acceptable expense to Saddam and his ruthless regime.

U.S.-Led Coalition.

The operations of the U.S.-led coalition were linked to political isolation and economic sanctions designed to force the withdrawal of Iraqi forces from Kuwait and to restore the legitimate government of Kuwait. Initially, the key military objectives were to deter further aggression, defend the Arabian Peninsula, maintain free world access to petroleum resources in the region by protecting key installations and sea

lanes, protect the lives and property of coalition citizens in the region, and enforce UN sanctions through maritime interception operations and surveillance of Iraqi airspace. Furthermore, it was felt that stabilizing the situation in the region by deploying military power would permit political and economic sanctions to work and promote long-term regional stability through success of the international process.

When it became apparent that political and economic sanctions would not produce a timely resolution of the conflict, coalition leadership shifted military objectives to eject Iraqi troops from Kuwait using military operations and to secure Kuwait to permit restoration of the legitimate government.⁵ There was also a shift in the method for promoting long-term regional stability in the Gulf area. If military means were to be used to eject Iraqi forces from Kuwait, Iraq's means to project offensive power throughout the region would also have to be destroyed or severely degraded. Strategically it was necessary to destroy Iraq's means to project power through ballistic missiles, in order to reduce the likelihood of Iraqi success to widen the conflict. Ballistic missiles provided Iraq's best means to involve Israel and achieve its strategic objective of mobilizing the Arab masses throughout the world.⁶ Operationally it was necessary to destroy Iraq's ballistic missile capability to protect the attacking force and limit the capability of Iraq to inflict heavy casualties. Limiting Saddam's ability to inflict heavy casualties would in turn reduce Saddam's probability of success in attaining the other strategic objective of influencing world opinion. If Saddam was allowed to influence world opinion by inflicting heavy casualties, the ability of the coalition to mobilize and sustain action in the UN would diminish and force it to abandon its aggressive posture. This would provide an opening for Iraq to negotiate to retain all or a portion of its August gains and successfully demonstrate its Arab national leadership by standing up to the coalition of Western powers and conservative Gulf monarchies.

Consequently, the operational objectives of the coalition forces shifted to those that supported an offensive strategy which demanded a swift, decisive military outcome: destruction of the Iraqi air force and command of the theater

airspace; destruction of Iraqi nuclear, chemical, and biological weapons capability including both production and storage; destruction of the Iraqi ballistic missile capability; isolation of the Kuwaiti theater of operations to cut off logistical support; destruction of the Iraqi theater command and control system; and destruction of the Republican Guard Force Corps deployed in the theater.

A modern, technologically superior, well-trained force executing a joint force doctrine centered on the AirLand Battle concept was the means for attaining these operational objectives. The decisions leading to the employment of this force were strongly affected by personalities of coalition political and military leaders. Time, distance, and impatience (derived from numerous pressures to quickly resolve the crisis) defined the constraints and restraints for the theater commander and his subordinates.

Time and distance factors from the CONUS base and within the theater were the driving factors for the operational concept underpinning the coalition campaign plan. Because of the extreme distance from the United States to the region, it takes a longer time to move sufficient forces to the Persian Gulf theater to protect vital installations than is required by an aggressor to move from the Saudi Arabian border to seize those vital facilities. Therefore, retaining free world access to the peninsula's vast petroleum reserves requires adequate deployment time. To provide adequate deployment time, indications and warning signs must prompt a decision by the NCA to deploy forces to the theater well in advance of an anticipated conflict.

However, in the absence of sufficient warning to deploy a defensive force, a force capable of deterring further aggression was necessary to gain time to deploy the main force. Additionally, the deterrent force had to contain enough combat power to sufficiently reduce any attacking force by attrition and prevent Iraqi force regeneration until the main coalition defensive force could be deployed.

Within the theater, the vast distances and limited infrastructure severely reduced the coalition's ability to shift

forces. Also, the distances over which the force would have to be supported in either defensive or offensive operations dictated an extensive distribution system over this same limited infrastructure. From the primary ports of Ad Damman and Al Jubayl, coalition forces moved nearly 600 miles just to reach staging and training areas. Movement to final assembly and attack positions for offensive operations was approximately 300-500 miles for the respective corps. Once combat forces were in place, sustainment requirements would demand long lead times, extensive stockpiles, and hauling capacity that would limit movement of nearly anything else in the Eastern Province. The combination of limited infrastructure, strategic and theater distances, and massive transportation requirements established operational planning time horizons of approximately 60 days and emphasized the need for a campaign that would produce a decision before the logistics system could fracture under the weight of an attrition battle. It also dictated an operational concept and the deployment of logistical forces to support that operational concept that could not be easily or quickly altered once the decision to deploy was made.

To reduce the impact of the long distances from the CONUS base, the theater commander decided to rely heavily on support from Saudi Arabia, the host nation. The effect was a reliance on third country national civilians to man major portions of the sustainment system. This unique contract sustainment concept was untried in the region and many questioned its reliability. Though it was highly successful, one must be cautioned regarding the unique capabilities possessed by Saudi Arabia—excess reception capacity, large labor support, and great wealth. It is unlikely that such conditions will be replicated for contingencies elsewhere.

Finally, the personality of the theater commander, General Norman H. Schwarzkopf, was a unique combination of combat experiences that spanned decades including the trials of service in Vietnam through confusing intervention in Grenada. That experience combined with a superior intellect and permitted him to understand the totality of unified operations and their link to the strategic and political goals of the coalition

nations. Most importantly, his experience and his personal convictions spawned from those experiences focused his intellect on developing a campaign plan that would be decisive while minimizing casualties and preserving the force. As a result, the campaign would maximize the employment of superior technology and firepower before ground forces would be committed. When committed, overwhelming ground forces would maneuver under the cover of deception and the protection of massive firepower to attack Iraqi forces from an unexpected direction to maximize force lethality, destroy the Republican Guard Force, and achieve the stated operational and strategic objectives in a single battle. The campaign would be swift and hinge on success in a single decisive battle while incurring minimum coalition casualties.

CAMPAIGN EXECUTION

Iraq.

The major phases of the Iraqi campaign were defined by the observed shifts in the strategic and operational objectives during the period of July 15, 1990, through April 10, 1991.⁷ The first phase of the campaign was the buildup and posturing that took place to frame the issue of Iraqi indebtedness and the impact of oil quota violations by Iraq's major creditor nations—especially Kuwait. The invasion of Kuwait initiated the second phase as Saddam modified his objectives to include resolution of the colonial border dispute that resulted during the creation of Kuwait from the British protectorate established after World War I. The region contained extensive oil resources that straddled the imposed border. The disputed border, along with the questionable status of Bubiyan and Warba Islands with their access to the Persian Gulf, provided a historical justification for the invasion.⁸ Consolidation of the Iraqi position in Kuwait concluded the second phase of the campaign and defined the third phase. The fourth and final phase of the campaign was defined by the diplomatic and propaganda offensive Saddam waged to arouse the Arab masses throughout the region against the infidels and a barrage of threats aimed at the coalition. The purpose of this

mobilization and intimidation was to provide a supporting effort to assist his defense and consolidation by deterring the coalition offensive. This was to be accomplished by influencing world opinion through threats to inflict massive coalition casualties in a fanatical defense, to initiate worldwide terrorism, and to use missiles and/or weapons designed to inflict catastrophic casualties. The latter weapons were targeted against regional population centers—especially in Israel.

The campaign was not executed as planned for a variety of reasons attributable both to Saddam's decisions and his reactions to coalition initiatives. The primary difference in the execution of the campaign from its apparent plan was a result of Iraq's failure to generate unrest among the Arab masses in countries other than Jordan, Iraq's only significant sympathizer. Likewise, the terrorist campaign never materialized, most likely due to the strong influences of Syrian leadership on the terrorist community and the successful countermeasures employed throughout the coalition at home and abroad. Additionally, Saddam's attempt to alter his personal image by releasing hostages did not provide him the boost in political influence that he had envisioned. His pandering to the world press was greeted with disdain and stories of hostage mistreatment fueled world distrust of his regime. Also, the release of the hostages removed one of the key anxiety factors among the coalition populations. Concern for the safety of the hostages created by a coalition offensive against Iraq could have acted to impede or delay it.

Finally, the impact of the coalition's technological superiority was felt throughout Iraq, but particularly at the nerve center and heart of the Iraqi government and its war-making capability. The success of the stealth systems and precision bombing capabilities projected some of the same physical and psychological aspects as weapons of mass destruction without the liabilities of these type of weapons. Operations that could target Saddam and his war-making potential without causing widespread, indiscriminate destruction provided a counter to Saddam's attempts at influencing world opinion. Such

precision would prevent Saddam from painting coalition actions as war on the Iraqi people and the Arab nation.

U.S.-Led Coalition.

The coalition campaign was conducted in three phases: (1) the defense of the Arabian Peninsula, (2) destruction of Iraqi war-fighting capability and ejection of Iraqi forces from Kuwait, and (3) the liberation and reconstruction of Kuwait.⁹ Phase I consisted of several operations to ensure that Iraq was deterred and prevented from committing further aggression on the Arabian Peninsula. These operations included Operation DESERT SHIELD, Maritime Interception Operations in support of UN economic sanctions, and psychological and deception operations. The operations were designed to encourage Iraq to withdraw forces from Kuwait, restore the legitimate government, protect coalition lives and property, and reinforce the rule of law and negotiation to settle disputes to promote long-term stability in the region.¹⁰

Phase II consisted of offensive operations, supported by complex psychological and deception operations, to eject Iraqi forces from Kuwait and restore its legitimate government. Operations were initiated to gain and maintain air supremacy, destroy Iraqi present and future war-making capability, isolate Iraqi forces in the Kuwaiti Theater of Operations, and destroy Iraqi heavy forces—focusing on the Republican Guard divisions. These operations would permit the restoration of the legitimate Kuwait government while establishing the conditions for coalition and UN negotiation to reduce future Iraqi threats to the region. It was reasoned that these actions would reinforce the role of negotiation in accordance with international law to address the fundamental issues among regional states and, consequently, promote long-term stability throughout the region.

Phase III was comprised of operations to secure Kuwait's borders, liberate Kuwait City, provide emergency services to the liberated population, and establish conditions for negotiations. The aim of the negotiations was to build upon the conditions created by military successes to establish

inspection and sanction regimes to limit Iraqi military power to defense of its national borders while encouraging an internally generated transition of power from Saddam to a successor government.

By most measures, the campaign was executed as planned. The key to this success was the flexibility built into the operations supporting the campaign objectives and the consistency in the linkages among the political, strategic, and operational objectives of the coalition. For example, throughout the phases, the coalition either would accept withdrawal of Iraqi forces from Kuwait or was prepared to eject those forces. Additionally, based on Iraq's behavior and Saddam's policies, there was a continuous focus on long-term regional stability by reducing Iraq's capability to project power. This could be accomplished either through inspection, sanctions, and negotiations or by using military means to destroy Iraqi forces and material. As a result, the military campaign in support of the coalition political aims maintained focus while adapting operations to fit within the constraints and restraints of the coalition policies designed to respond to both immediate and long-term demands of this crisis.¹¹

A number of key decisions and significant events directly affected the results of the conflict. An examination of these decisions and events provide several insights into the conduct of the campaign, General Schwarzkopf's practice of the operational art and Saddam's failures.

IRAQI AND COALITION KEY DECISIONS AND SIGNIFICANT EVENTS

Iraq.

Iraqi Leadership in the Kuwait Theater of Operations. In addition to Saddam's momentous decision that resulted in the naked aggression on August 2, 1990, several key decisions led to events that significantly influenced the results of the conflict. Saddam's choice of his paternal cousin, Hassan Al-Majid, as the governor of Kuwait and de facto commander of Iraqi forces in what came to be defined as the Kuwaiti Theater of Operations reinforced a policy of tyranny which had

begun with the invasion of Kuwait. The effect was manifested in a myriad of atrocities that gained worldwide attention and solidified coalition resolve. The atrocities further colored Iraqi intentions while also tarnishing the causes of popular third country national groups such as the Palestinians in Kuwait who were branded by their participation in the actions of the occupation forces. This was particularly significant because the Palestinian cause was the linchpin of Saddam's psychological operations to widen the conflict and embed the aggression in the larger Arab-Israeli and Palestinian issues. A surge in atrocities reaffirmed coalition resolve to liberate Kuwait and eroded support for the longer duration strategy of sanctions and political pressure.

Ecological Warfare. The decision to initiate ecological warfare by dumping oil into the Persian Gulf, setting Kuwait oil fields afire, and liberally using fire trenches in the defensive scheme added a new dimension to the conflict. These acts solidified world opinion against Saddam as an evil and irresponsible leader willing not only to commit atrocities and pillage Kuwait, but also to endanger the world community and inflict permanent damage to this and other regions of the globe by destroying the fragile ecological system. This further separated the initial issues of debt, economic warfare, and colonial boundaries from the human issues of atrocities and ecological warfare that were directly attributable to Saddam himself.

Iraqi Doctrine, Technology, and Leadership. The entire Iraqi strategy hinged on influencing world opinion by inflicting massive casualties on the coalition. Already, Saddam had been branded as evil and his actions had verified that suspicion. Inflicting mass casualties would just add fuel to the flame. Operationally, a predictable defensive doctrine, technologically inferior weapons and intelligence systems, inadequate defensive terrain and a logistics system highly vulnerable to interdiction severely limited Iraqi options. Iraq did not possess the physical means to protect its strategic and operational centers of gravity because it was technologically overmatched in every domain.

The physical situation was exacerbated by the quality of leadership and the demands it faced. Inflexible, unsophisticated leadership commanded soldiers that, along with the lower level leadership, had been deployed into an untenable situation and did not possess the will to sacrifice for that leadership against their Arab brethren.¹²

U.S.-Led Coalition.

Execution of Draft 1002-90. One of the events which affected the U.S. response to the Iraqi invasion of Kuwait was the decision to execute Draft OPLAN 1002-90.¹³ The decision illuminates several points about the level of U.S. commitment to the region and demonstrates the value of the peacetime planning process. It was neither an easy decision nor a rapid decisionmaking process, and an examination of the process provides insights into the events of early August.

The situation in the Persian Gulf during the month of July 1990 created an atmosphere of concern and caution among key personnel throughout DoD. As the situation developed and stability deteriorated, various agencies, especially CENTCOM, JCS, and DIA, initiated standard procedures of alert and planning to address a range of contingencies that could develop.¹⁴ Like countless other situations, the intent of the Iraqi forces poised on Kuwait's northern border was ambiguous at best. Planning and staff groups sifted through a host of contingency alternatives as decision makers called for options to both defuse the situation and prepare for any action that may have been required to protect U.S. and free world interests in the region. Instead of looking first to existing plans developed by the CINC's staff, key players in Washington had developed the habit of requesting alternatives that provided a gradual and measured response by U.S. military forces. This was true in previous contingencies in the area such as Operation EARNEST WILL and the same modus operandi seemed to be in effect.¹⁵

At the same time that Washington was seeking force employment alternatives, USCENTCOM staff officers were advocating action based on OPLAN 1002-90. A product of the

deliberate planning system, OPLAN 1002-90 contained options for both deterrence of aggression and protection of U.S. interests in the region. It was planned against a threat that included the array presented on the Kuwaiti border and it was current. The final coordinating draft had been distributed to JCS and Service components for staffing a month earlier. Additionally, the operational concept had been examined within analytical models at CENTCOM Headquarters and was gamed in a command post exercise completed only days before at the Joint Warfare Center.¹⁶ In addition to the knowledge that had been gained and the refinement that had taken place during Exercise Internal Look 90, service components were in the final stages of developing the computer tapes that contained detailed force lists that would be refined into a Time-Phased Force Deployment Data List (TPFDL) at an upcoming conference in September. In short, OPLAN 1002-90 met all the requirements for an immediate and measured response to the range of contingency situations that might develop.

Instead of a piecemeal deployment that develops from sequential decisions during a real time Crisis Action System situation, OPLAN 1002-90 demanded a number of complex decisions that required sufficient lead time to enact. The decisions were interactive and set a myriad of parallel actions in motion. A list of forces to be deployed over a period of up to 180 days had to be refined. A host of forces and support mechanisms throughout the world had to be alerted by JCS to marshall the transportation resources to deploy the forces. A decision initiating a piecemeal alert and deployment process, commonly used by JCS, would not meet the demands of this situation. A bold decision to deploy the complete list of forces had to be made to permit the entire deployment system to operate effectively.

Many of the combat support (CS) and combat service support (CSS) forces were in the Reserve Components. One of the assumptions of the plan was the requirement for partial mobilization.¹⁷ An executive declaration of a national emergency and a decision by the President for partial mobilization would be required to activate and deploy the

Reserve CS/CSS forces necessary to support the plan. For later deploying combat and combat support forces, it was assumed that mobilization and training would be required before they could be deployed. Nevertheless, a substantial force of more than four divisions was required to confront an Iraqi force of the size deployed in Kuwait and southern Iraq. This large force demanded a robust theater logistical support organization.

USCINCCENT's decision to recommend execution of OPLAN 1002-90 and President Bush's decision to execute the plan were bold indeed, considering the sheer size of the force to be deployed. The decisions also exposed a number of deficiencies in the U.S. ability to react to such an extensive contingency operation. JCS was not geared to a complete plan execution, but instead to a set of piecemeal deployment decisions that demanded multiple approvals at every turn. The Joint Operational Planning System (JOPS), its replacement Joint Operational Planning and Execution System (JOPES), and the supporting Joint Deployment System (JDS) were unable to cope with the demands of simultaneously refining the TPFDL, deploying forces, and reacting to changes demanded by the CINC or resulting from changes in transportation availability or force list modifications. The system needed flexibility. Finally, the well-known deficiencies in the U.S. strategic lift capability moved to the front of the queue of limitations with which planners and operators had to cope.

Even with all of the difficulties, the decision to execute a deliberate plan instead of a crisis action plan provided some valuable insights. The success of the plan once put into action emphasized the value of detailed, deliberate planning. The concept was thoroughly gamed and analyzed. Nearly all situations encountered throughout Operation DESERT SHIELD were addressed during the deliberate planning process and gaming of the plan. As a result, options for solving those situations were well thought through and ready for presentation to decision makers without delay. Likewise, the value of using the process was confirmed. Greater emphasis

on deliberate planning and its application to future contingency requirements is merited.

Force Deployment Priorities. As Iraqi forces were consolidating their position in Kuwait, General Schwarzkopf determined that the key military action to support U.S. policy and strategy in the region was to place ground forces "in harm's way," to show resolve and deter further aggression. The 82d Airborne Division's Divisional Ready Brigade had the rapid reaction mission. It was one of the only forces capable of being strategically deployed to the region. Furthermore, because it was light, the CENTCOM staff determined that the majority of its support requirements could be met by the host nation. It became the "Line in the Sand," and the decision to deploy maximum combat power at the expense of deploying logistics support set the priorities for the first 30 days of deployment.

This decision had several impacts. It revealed the fact that light forces are not light when facing a modern, armored threat. In fact, once alerted, steps were taken throughout the 82d to enhance its antitank capability, primarily with additional TOW weapon systems. By deciding not to deploy the normal complement of logistics support elements, especially those from the XVIII Corps earmarked to support the 82d, the need for significant host nation support was magnified beyond original estimates. Finally, allocating early sorties exclusively to combat forces delayed the development of the theater support structure demanded for future operations. As a result, the decision limited the options for the overall operational development of the theater because it tied the organization to host nation sources and strategic LOCs.

Also, instead of the planned sortie requirement for the 82d Airborne Division, the demand for transportation exploded and nearly doubled.¹⁸ This increase was due primarily to the 82d Airborne Division's demand for additional anti-armor weaponry and ammunition. It illustrated the critical need for an effective light anti-armor weapon for the infantry soldier. The currently fielded Dragon is severely limited by range and lethality against modern armor. Instead, the light units chose to reinforce with additional TOW weapon systems that were both larger and

heavier, increasing both the weight and volume requirements of the force.

The decision also highlighted the necessity for the early integration of host nation support into the planning process, especially for contingency plans in this region. Previously, the United States lacked firm mechanisms for establishing such support in the quantity demanded. During planning for contingencies in the region, regional states were reluctant to formalize support agreements and establish procedures for supporting for U.S. forces deployed there. Consequently, planning assumptions overestimated the need for U.S. logistical support and its transportation requirements and underestimated the capability of host nations to meet the needs of deployed forces.

Giving absolute priority to the deployment of combat forces set the course for the logistical support development throughout the theater. The entire structure would be built on an *ad hoc* basis. The fact that host nation support capabilities of the regional states exceeded the estimates of logistics planners reinforced movement along this course. As host nation support demonstrated its ability to meet the needs of the growing combat forces during Operation DESERT SHIELD, the defense of the Arabian Peninsula, logistical planners reduced their requirements for theater combat support and combat service support forces. By virtue of force structure decisions during the previous decade, CS and CSS forces were known to be in short supply in the Active Component. The success of host nation support combined with self-imposed troop ceilings to void the requirement for additional Reserve Component forces, especially theater level elements.¹⁹ However, the resulting *ad hoc* theater support structure was then wedded to a defensive posture. It became severely stretched when called upon to support the offensive operations in Operation DESERT STORM and showed early signs of fatigue after only 100 hours of intense combat. The adage that plans are never executed as written was demonstrated once again. The more robust doctrinal theater logistical organization proposed in OPLAN 1002-90 would

have provided much greater flexibility for future operations than the *ad hoc* organization that was formed.

We must be cautious about these decisions in the future. Successful support of the early U.S. policy and strategy in the region by the early deployment priority of light combat forces at the expense of an integrated support may provide planners with a false sense of security for future contingency operations. First, planners must recognize that light forces are not as light as advertised when facing a modern, armored threat. This leads to significantly underestimating already critical strategic lift requirements within a system that does not have adequate resources to meet the planned theater requirements. Second, there are few places in the world that possess the infrastructure and wealth to provide the level of host nation support provided by the Gulf states. Yet, even with this host nation support capability, the absence of firm agreements for support of U.S. forces in contingency operations in the region complicated planning and placed U.S. and other coalition combat forces at risk when deployed without the full complement of their organic and supporting logistical organizations. Finally, one should recall the lessons of previous contingency operations where the intent of the military operation shifted, just as the Persian Gulf contingency operation shifted from defense of the Saudi Arabian peninsula to the ejection of Iraqi forces from Kuwait. The early decisions on the development of the theater support structure establish boundaries on flexibility for future operations. Failure to recognize the demands of the theater and the support of the forces for the operations envisioned in the theater greatly increases the risk to the mission accomplishment and the welfare of the contingency force.

Coalition Command and Control. A key tenet at the strategic and operational levels of war is unity of effort.²⁰ Traditionally, that unity was garnered through an organization that installed a single commander for the theater of operations. Most notable in history, of course, was the development of the Supreme Allied Command in Europe during World War II with General of the Army Dwight D. Eisenhower.

The contingency operation in the Persian Gulf provided neither the time, personnel, nor political will to develop an

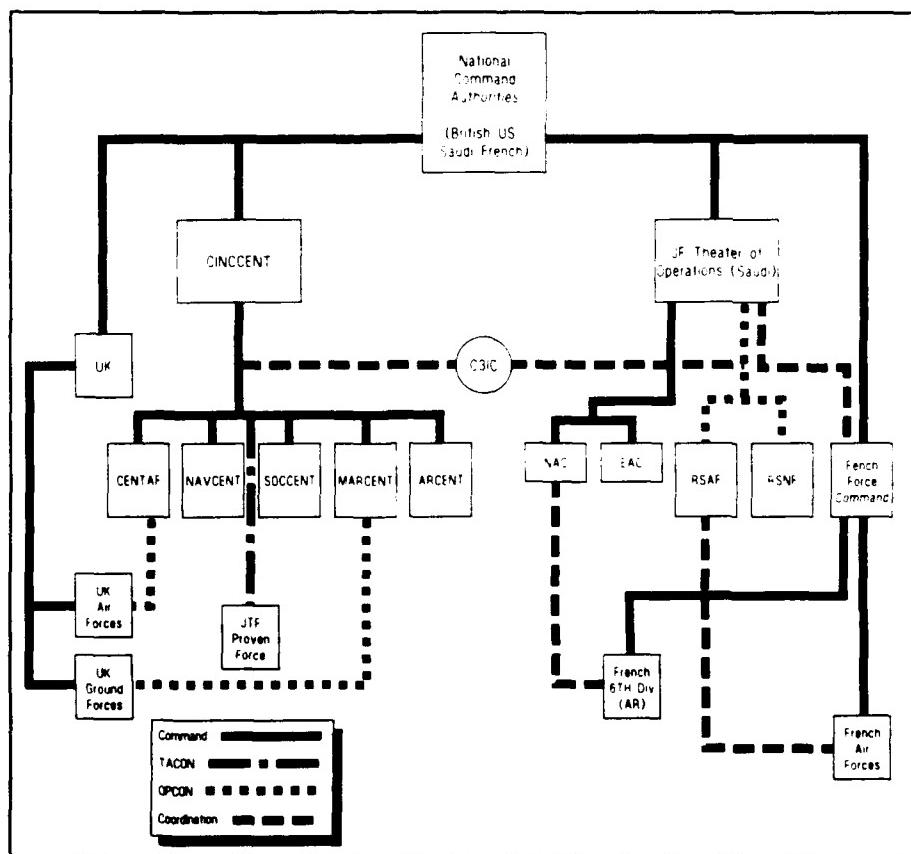


Figure 1. Operation Desert Shield Coalition Command Relationships.

integrated command structure. Instead, General Schwarzkopf, in conjunction with Lieutenant General Khalid bin Sultan, developed a dual command structure for the coalition that would provide the requisite unity of effort within the political, manpower, and time constraints of the situation. (See Figure 1.)

Within the command structure, U.S. forces would be commanded by General Schwarzkopf and British forces would be placed under his operational control while remaining under the command of the Commander, British Forces Middle East, Lieutenant General Sir Peter de Belliere, in Riyadh, and the British Joint Force Commander, General "Paddy" Hines, at Hy Wycombe in the United Kingdom (UK). Initially, French forces would be under the command of Lieutenant General

Roquejoffre, Commander French Forces Middle East, and would be under the operational control of Lieutenant General Khalid. Prior to Operation DESERT STORM, this relationship would shift and French forces would operate under the operational control of USCINCCENT, General Schwarzkopf.

Lieutenant General Khalid bin Sultan commanded the Joint Force/Theater of Operations Command which consisted of the Saudi Arabian Armed Forces (SAAF), the Saudi Arabian National Guard (SANG), the Arab/Islamic Corps consisting of two Egyptian and one Syrian divisions, and all other Arab and Islamic forces from the Persian Gulf and regional neighbors. These forces were organized into three commands. The Egyptian and Syrian divisions operated as an Arab/Islamic Corps. The remaining forces were organized geographically into the Northern Area Command and the Eastern Area Command. Though these commands served primarily for command and control and sustainment operations, each area command fielded an operational element designated as the Joint Forces Command North (JFC[N]) and Joint Forces Command East (JFC[E]). The Arab/Islamic Corps, JFC(N), and JFC(E) operated within their own area of operations. (See Figure 2.)

The relationship between General Schwarzkopf and Lieutenant General Khalid developed as one of lead and support. Neither Lieutenant General Khalid, nor any other Saudi general, had ever commanded such a large, complex force. However, he was educated in U.S. military schools at Fort Leavenworth and Maxwell Air Force Base and this training provided a common basis of language and doctrine. The means for accommodating this relationship was through a series of daily meetings and private conferences designed to gain a common understanding of the goals of the coalition and the individual contribution that each force could make.

Coalition planning was used as an adjunct to the command arrangements to enhance the unity of effort. Here, also, creativity was necessary to develop a mechanism for coalition planning. Plans for the Combined Defense of Saudi Arabia (follow-on to DESERT SHIELD, OPLAN 1002-90) and the Combined OPLAN for Operation DESERT STORM were

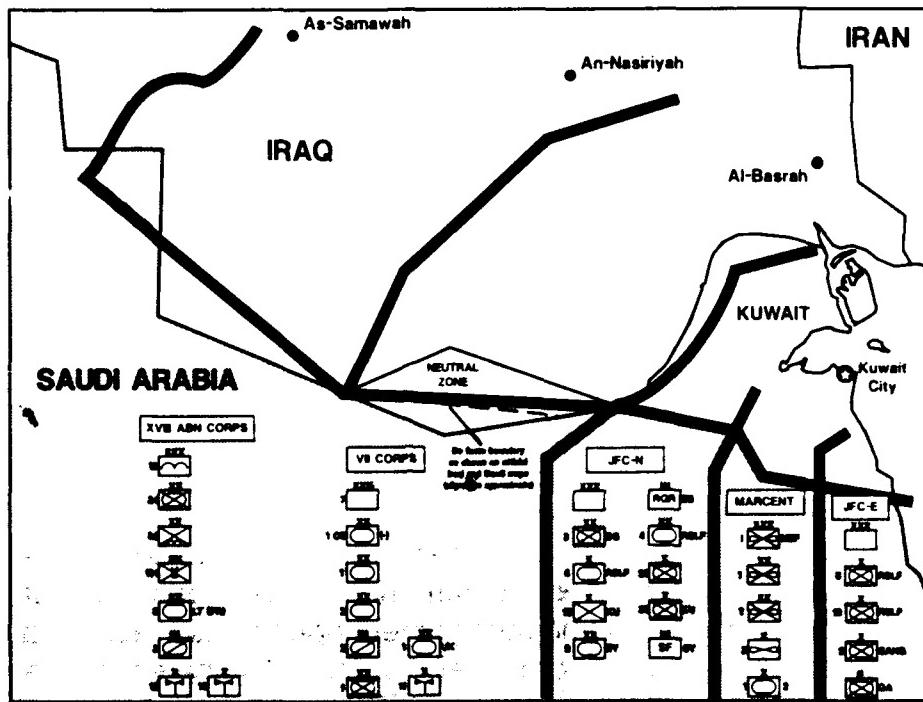


Figure 2. JFC-N, JFC-E, and Corps Boundaries.

developed by a combined planning group consisting of officers from the Plans Division, USCENTCOM J-5, and an *ad hoc* group from the Saudi Arabian Armed Forces (SAAF), primarily the J-3 element. The planning group was co-chaired by Rear Admiral Grant Sharp, USCENTCOM J-5, and General Yousef Madani, SAAF J-3.

Although four major combined OPLANS were eventually developed, the most valuable aspect of the combined planning process was that it forced the Saudis to plan for the reception, sustainment and integration of coalition forces and it provided the only forum to identify and resolve combined issues across all functional areas. Moreover, it provided a mechanism for rapid access to U.S. and Saudi decision makers and institutionalized the plan development process for the Saudis.

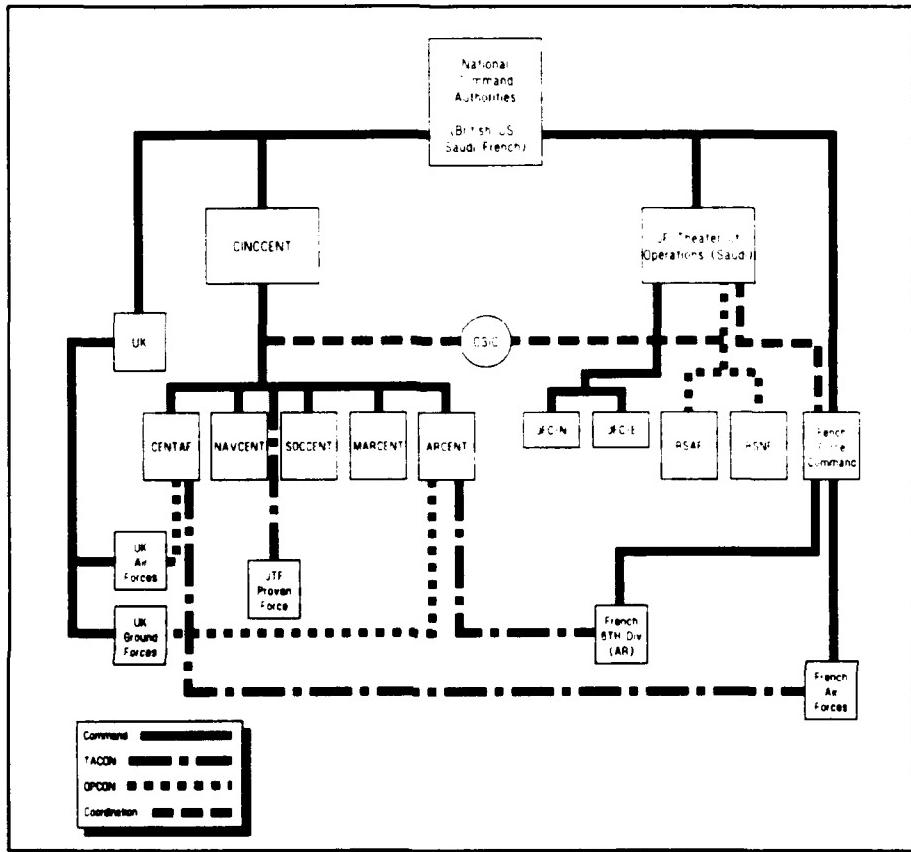
During execution of all plans, communication and coordination was established through an organization known

as the C³IC or Coalition Communication, Coordination, and Information Center. Initially designed to coordinate the reception and deployment of coalition ground forces, it grew into a unique forum for coordinating all coalition forces. Combined with a robust network of liaison parties sometimes all the way to battalion level, this group provided an invaluable contribution to the unity of effort required in this massive operation.

For air operations, the key instrument for planning and execution was the single Air Tasking Order (ATO). In actuality, all coalition air assets (except those retained in accordance with national or service doctrine such as the Marine Air Wing) were placed under the operational control of the Joint Force Air Component Commander (JFACC), Lieutenant General Charles Horner. (See Figure 3.) All missions during Operation DESERT SHIELD and Operation DESERT STORM were flown directly under a single ATO, or in extremely close coordination with that order as the basis for all air operations in the theater. Operationally, it stands as the singularly most successful instrument for achieving coalition unity of effort.

Though many command and control arrangements were considered and proposed, General Schwarzkopf displayed incredible insight in promoting the parallel design. The key to maintaining focus was coalition cohesion while providing the tools to execute a complex operational concept demanding extreme precision and close coordination. Cohesion, in this instance, was gained through an understanding of the cultural environment and developing a command and control arrangement that would operate within that environment. Coalition cohesion provided the basis for unity of effort. Without it, nothing else was possible. This was a regional problem being solved with the assistance of several major powers, all with individual agendas. Yet, none could be successful without significant material or political contribution of the others.

One additional attribute of the command arrangements deserves mention. There was a long-term component to USCINCCENT's vision and the value of this organization. It demanded that Saudi Arabia, the senior Arab/Islamic member



**Figure 3. Operation Desert Storm
Coalition Command Relationships.**

of the coalition, develop the high level staff to contend with a future defense arrangement in the Persian Gulf region and continue its leadership within any arrangement in the area. Additionally, this was consistent with Saudi Arabia's expressed desire to enhance its capability to better provide for its own security through expanded ground and air forces under a single integrated national staff.

Most importantly, it addressed the key aspect of any coalition: respect for the value of each and every individual member of the coalition and the capabilities it brought to the operation. The relationship between General Schwarzkopf and Lieutenant General Khalid provided the glue to tighten the structure. Only the parallel structure could accomplish this within the political and cultural constraints of this unique

contingency situation. By all measures it was a resounding success.

The Coalition's Main Effort. One key to coalition solidarity and unified effort was the relationship between the United States and its NATO allies that participated in Operation DESERT SHIELD and DESERT STORM. However, the operational unity that was developed through years of NATO exercises was employed within a political context that placed significant demands on coalition military leadership. Organizing the ground forces for combat and weighting the main effort were examples of the tensions with which General Schwarzkopf contended.

An early examination of the force ratios required to execute the operational concept of Operation DESERT STORM indicated a requirement for additional forces. At the same time, planners were provided with a general idea of how those forces should be allocated against the various tasks that had to be performed to execute that concept. Once the decision was made to deploy additional U.S. and coalition forces to permit offensive operations, the job of allocating forces to the main effort gained specific urgency, primarily to permit the proper adjustments to the theater logistics support structure and battlefield management scheme.

General Schwarzkopf determined that the main effort would be conducted by the heavy maneuver forces of the two U.S. corps with the main attack on the Republican Guard conducted by the U.S. VII Corps. The VII Corps would consist of four heavy divisions, an armored cavalry regiment, and reinforced corps troops. The XVIII Airborne Corps would secure the western flank of the main attack, cut Iraqi lines of support, block any Iraqi withdrawal through the Euphrates valley, and participate in the final attack on remnants of the Republican Guard in the pursuit and exploitation portion of the main attack. Supporting efforts would be conducted along the coast toward Kuwait City by Saudi forces of the Joint Forces Command (East) and Marine forces of USMARCENT reinforced by the United Kingdom's 1st Armoured Division. An Arab/Islamic Corps of Egyptian and Syrian forces would conduct a supporting attack along the Wadi al Batin designed

to encircle Kuwait City. Joint Forces Command (North) consisting of Saudi, Kuwaiti, and other Arab/Islamic forces from Gulf states and regional friends would attack between USMARCENT and the Arab/Islamic forces to complete the encirclement of Kuwait City and permit Kuwaiti and Saudi forces to liberate it.

Coalition domestic politics required coalition military leaders to include the forces from the UK and France in the main effort. At the same time, a continued refinement of the plan indicated the need to shift additional forces to the main effort, specifically the main attack against the Republican Guard. Such a move would markedly increase the probability of success without risk to remaining supporting efforts. By the same token, the British and French commanders felt that they could best capitalize on the relationships developed from their NATO experience by fighting alongside U.S. forces in the main effort. USCINCCENT's decision to allocate the 1st Armoured Division (UK) and the 6th French Division (LT) had several unique and varied effects on the ground force and the operational concept of Operation DESERT STORM.

The immediate effect that could be quantified was to raise the anticipated force ratios in the main attack at the point of decision against the Republican Guard force by nearly 30 percent from slightly over 2:1 to nearly 3:1. It was believed that this would significantly enhance the main attack's probability of success. Simultaneously, it reduced the force ratio in the USMARCENT supporting attack along the coast toward Kuwait City by approximately 50 percent from nearly 4:1 to slightly over 2:1. Even at these favorable force ratios, however, Lieutenant General Walter Boomer, Commander USMARCENT, voiced serious concern about his ability to accomplish the mission without a high casualty rate. General Schwarzkopf soon reacted to Lieutenant General Boomer's urgent requests, personally supported by Marine Corps Commandant General Al Gray, and attached the heavy armored Tiger Brigade (actually the 2d Bde. 2AD) from the VII Corp's 1st Cavalry Division, to USMARCENT. The details of this decision are discussed later; however, it reduced the force ratio in the critical main effort, while it increased the force ratio

in the less critical USMARCENT supporting effort. From an analytical point of view, this change was considered significant.

Placing the 6th French Division (LT) under the tactical control of the XVIII Airborne Corps added a greater mobile security force to protect the coalition western flank. It also served to shorten the French supply lines that were routed through Red Sea ports. Finally, it provided the XVIII Corps with additional security assets that freed heavier combat power to participate in the subsequent pursuit and exploitation of retreating Republican Guard forces.

A second impact was on the sustainment system. The movement of the large amount of heavy forces to the west required a wholesale transfer of logistics stocks and support units by a theater support structure that was already strained. Moreover, to comply with complex deception plans, key preparation and movement could not begin until after the beginning of air operations and would be given a very short time to complete.

Third, from a defensive standpoint, the movement of the 1st Armoured Division (UK) removed a key heavy maneuver force capability from the force that was protecting critical oil facilities in the Eastern Province. Because the defensive concept required a counteroffensive conducted by heavy armored force, this new task organization exposed the heavy maneuver force deficiency of Marine Expeditionary Forces. Not only were Marine heavy forces small, but they were not equipped with the modern M1 Abrams tank with its greater protection, mobility, and lethality. This deficiency would later prove too risky and demand the modernization of Marine heavy forces and the attachment of a U.S. Army heavy brigade to USMARCENT.

However, the decision supported the unity of the coalition by quelling domestic political pressures on coalition leaders in Britain and France. Just as importantly, it served to coalesce an international force, instead of a purely U.S. force, that would enter Iraqi territory and strike at the heart of the power behind Saddam's regime—the Republican Guard. Most significantly,

it solidified the precedent for future cooperation of NATO allies employed in contingency operations outside of the NATO treaty area. The far reaching impact of that precedent will be felt throughout the world and demonstrates another key ingredient of President Bush's declaration of a "new world order" and the international community's obligations within that order.

Attachment of the Tiger Brigade to USMARCENT. As described above, the decision to place the 1st Armoured Division (UK) under the tactical control of the VII Corps concerned USMARCENT forces making the supporting attack toward Kuwait City. Upon further examination, the USMARCENT Commander deemed that he would be unable to accomplish his assigned objectives while experiencing a much higher rate of estimated casualties without additional heavy armored forces in the USMARCENT supporting attack. This was one of the few controversial positions taken by a component commander that was actively supported by the personal intervention of the Service chief.

Based on the study of the operational art and science, the decision raises several issues and merits additional consideration. The decision to attach the heavy armored Tiger Brigade from VII Corps' 1st Cavalry Division reduced the estimated force ratio in the main effort below the desired 3:1. Consequently, it raised the estimated force ratio in the supporting attack well above the 2 or 3:1 ratio sufficient for a supporting attack to nearly 4:1. In theory and accordance with current doctrinal concepts, this reduced the probability of success of the main attack at the decisive place and time while increasing the risk to the main attack force. From the standpoint of operational art, this risk could have jeopardized the key operational objectives. It reduced the probability of success in the destruction of the Republican Guard Force Corps that was directly linked to two of the strategic and political objectives: ejecting Iraqi forces from Kuwait and reducing the offensive power projection capability of Iraq that was contributing to the instability of the region. By the same token, it provided a greater force ratio in the supporting effort than the main effort. This created the potential for a situation

in which the supporting attack would have experienced a greater measure of success than the main effort, which could have had a severely adverse operational effect. The success of the supporting attack could lead to the commitment of the Republican Guard Force Corps against the weaker coalition force. This commitment would not only have jeopardized the force in the supporting attack charged with securing Kuwait City, but would have displaced the Republican Guard from the position in which USCINCCENT planned to achieve one of the key objectives of the entire operation; an objective General Schwarzkopf felt would be decisive. It should be noted that this decision was made long before intelligence reports began to indicate the attrition of Iraqi forces by air power and desertion that subsequently altered the force ratios in all sectors.

The rapid disintegration of the Iraqi force during the execution of Operation DESERT STORM belies further examination of this decision. However, it illustrates the interplay of art and science at the operational level of war and the impact of the intangible factors on decisions involving great risk to human lives. General Schwarzkopf judged the impact of higher casualties in the Marine forces would have been critical. He further determined that the risk to the main attack could be reduced and its probability of success enhanced by other means such as prolonging air operations.

One additional issue was highlighted by this situation—Marine Corps heavy forces. The critical need for additional heavy forces gives one reason to reexamine the current roles, missions, and organizations of the Marine Corps and the need for modern, heavy forces assigned or attached to Marine Expeditionary Forces for certain contingency operations in the future. Before the decision was made to modernize Marine Corps armor forces and subsequently attach the Tiger Brigade to the MEF, the MEF could not be considered to have a viable heavy force capability. Should the Marine Corps consist of only light expeditionary forces and confine the heavy forces to the Army with the provision that additional heavy forces can be attached to the Marine forces when required?

Destruction of the Republican Guard Force. The strategic decision to destroy the Iraqi Republican Guard Forces in Kuwait was key to bringing Iraq to the negotiating table and resolving the crisis in the Persian Gulf region. The value of this decision is found in the linkage of this operational objective to attaining the strategic and political objectives of ejecting Iraqi forces from Kuwait and restoring the legitimate government of Kuwait.

The Republican Guard Force Corps (RGFC) represented the strength of Saddam's regime. It possessed the bulk of his offensive force projection capability as well as the heart of the domestic power base used by Saddam to retain control of the Iraqi government. Operationally, the RGFC was positioned as a reserve force and possessed the only capability for Saddam to influence the outcome of the conflict by striking coalition forces and inflicting maximum casualties in a short period. In this way he could realize his desire to influence the domestic constituency and political will of the coalition members. At the same time, elements of the RGFC were interspersed with Iraqi regular and popular forces as a stop-gap measure to end desertions, instill (and sometimes coerce) fighting mettle into those forces, and strengthen the Iraqi political will.

Selection of the Republican Guard Force as the coalition's key operational objective set into motion a series of required actions to insure that the objective was accomplished. CENTCOM planners deemed that the success of these actions would have an impact on future contingency operations and the doctrine and force structure to execute those contingencies. Destruction of the heavy armored force defending from well-prepared positions built over a 5-month period would require a force capable of rapid maneuver and superior lethality. The object of the maneuver was to force defending RGFC units from their prepared positions, create a fluid battlefield, and complete their destruction by synchronized application of the superior ground and air forces. The only forces capable of creating these conditions were the ground forces. Though air power pounded the defensive positions for days, there was continuing skepticism regarding the extent of destruction inflicted solely by air. Instead of

moving from those positions. Iraqi commanders chose to go to ground and rely on its protection.

However, a significant reduction of the defending force through attrition by air power was determined to be a precondition for the successful destruction of the RGFC. A planning figure of 50 percent was used to permit ground force ratios at the point of decision of approximately 3:1 for the main effort against the Republican Guard.

As we saw, the concept of operation for the ground forces was centered on a wide flanking movement to the West of the Iraqi main force defenses. (See Figure 4.) The aim was to breach the initial defenses with a concentration of forces of about 6-8:1. The purpose of the maneuver was then to bypass forward fixed defenses and force the Iraqi reserves to react and fight from an unsuspected direction where they were less

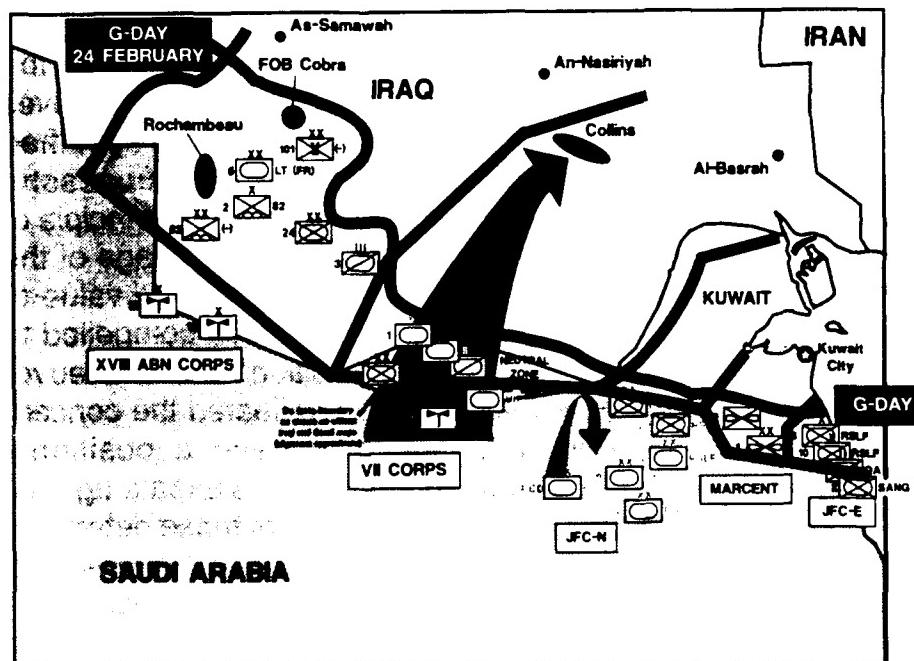


Figure 4. Coalition Disposition, G-Day.

protected by their prepared positions. It was also designed to require the Iraqi heavy reserve forces to maneuver against the coalition forces and engage in a fluid battle for which Iraqi forces had not demonstrated skill or preparation. Forcing the Iraqi reserves, especially the RGFC, to fight a fluid battle of maneuver would capitalize on the strengths of the coalition forces and prevent Iraqi forces from fighting a set piece battle of attrition. Once Iraqi forces were exposed, coalition forces could take advantage of their greater stand-off capability. They could engage and destroy Iraqi forces beyond the effective ranges of Iraqi weapons. This would in turn lessen the risk to coalition forces while having a severe psychological shock effect on the Iraqi forces, hastening their disintegration. The fluid maneuver battle would subject the RGFC to defeat in detail and accomplish the key operational, strategic, and political objectives.

Several things can be gleaned from an examination of the decision to key on the Republican Guard and develop a concept of operation to destroy it. First, understanding the linkage between the destruction of the RGFC and the accomplishment of the stated strategic and political objectives maintained the focus of coalition forces and solidified USCINCCENT's theater strategy. Second, successful execution of the concept of operation validated the principle of synchronizing ground and air forces to take advantage of the strength of each element. It further emphasized the value of air superiority/supremacy against heavy forces compelled to move from well-prepared defensive positions and maneuver in the exposed desert terrain. Finally, it validated the concept of maneuver by ground forces to achieve a positional advantage in which to employ their weapon systems against defending forces and/or compel movement of those defending forces from well-prepared positions and subject the enemy to defeat in detail by synchronized ground and air forces.

Prolonged Air Operations. Just as proponents of the value of air power have overestimated its contribution to the campaign in the Persian Gulf conflict, the value of the air operations during Operation DESERT STORM likewise should not be underestimated. Instead of concentrating on which arm

contributed the most to the success of the campaign, emphasis should be placed on understanding the balance and synchronization among the complementing forces. It is a well documented fact that air supremacy in a desert tactical environment is a vital factor for success. The most vivid example of this was during the campaign in the Western Desert from 1940-43. In that campaign, periodic air superiority provided operational commanders on both sides with the ability to protect their own forces from aerial attack, deny the enemy access to ports, attack vital enemy supply lines, and provide reach for the tactical commander to destroy artillery, separate infantry supporting armored forces, and attack the elaborate desert defenses that characterized the ground battles.²¹ For the operational commander, air power provides strategic and operational reach, force protection from hostile air attack and another means for the tactical destruction of enemy ground forces and support. Air supremacy in Iraq and Kuwait permitted total freedom of action to destroy Iraqi forces while reducing exposure of ground forces to sustained combat. This resulted in markedly fewer casualties and dramatically underscored the totality of the military victory. However, the limits on air power decisiveness were demonstrated when it became necessary to secure or deny great expanses of territory to enemy ground forces and when destruction in detail of the key enemy force—the RGFC—was demanded.

There were many reasons why the air operations during Operation DESERT STORM were extended beyond the original estimates by CENTCOM and CENTAF planners. Sealift limitations delayed the arrival of additional forces in theater to support the expanded offensive force. More time was required to insure that logistical support forces were positioned in forward logistics bases before ground operations were launched. There was also a diversion of air resources to meet the political imperative and strategic objective of destroying the elusive SCUD ballistic missiles that were striking cities in Saudi Arabia and Israel. Neutralizing the SCUD threat was extremely time sensitive for two primary reasons: 1) to prevent participation by Israeli forces in the conflict; and 2) to prevent the erosion of political will within regional states. The first, of course, was crucial to countering

Saddam's strategy of deflecting the conflict toward the larger Arab-Israeli and Israeli-Palestinian issues, which were key to mobilizing the Arab masses and affecting international opinion. The second effect could occur if weapons such as ballistic missiles, especially those carrying chemical or biological weapons, could produce extremely heavy casualties in a short period of time. Successful employment of these weapons against the civilian populations in the Gulf states could weaken their resolve and undermine coalition efforts by removing necessary host nation support and legitimacy from the coalition forces.

However, in light of the early strategic and operational successes of air power, it also was not inconceivable that General Schwarzkopf purposely prolonged the strategic and operational phases of the air operations to protect his ground forces and limit exposure to combat and the resulting casualties that could have eroded the political will of the United States and its coalition partners. If the strategic bombing operations could destroy key Iraqi NBC and ballistic missile capabilities, cause the withdrawal of Iraqi forces from Kuwait and permit the reinstatement of its legitimate government, the remainder of the coalition's political goals promoting long-term stability in the region could be attained at the negotiating table.

Evidence supporting this assertion can be found in several quarters. First of all, direction of the strategic air operations were highly centralized. Instead of the doctrinal apportionment of air effort to the campaign requirements of the operational and tactical commanders, targets and their associated level of effort were briefed daily and approved or modified by the Joint Force Commander, USCINCCENT.

Additionally, targets designed to prepare the ground battlefield and nominated by tactical commanders were often altered without consultation with those commanders. Subsequently, the synchronized effect to be gained by attacking nominated targets with a specific ordnance at a precise time were altered or foregone to insure that USCINCCENT'S specific targeting requirements were met. Concerns over these facts were expressed by several coalition

tactical commanders as they prepared to initiate ground operations.²²

Finally, though not driven by casualty estimates, many decisions reflected General Schwarzkopf's concern for them and the potential effect high casualty figures might have. Several decisions such as the organization for combat that reinforced Marine Expeditionary Forces with heavy armored forces of the Tiger Brigade and the decision to reduce front line Iraqi defensive forces and key reserve elements by 50 percent attrition by air power were discussed earlier. Extending air operations beyond the initial planning estimates was also consistent with these concerns.

Prolonging air operations prior to initiation of ground operations generated other effects that are evident in retrospect. These effects and their impact on future contingency operations are both positive and negative. On the positive side, they measurably contributed to the accomplishment of the stated strategic, operational, and tactical objectives. Iraqi capabilities to produce and employ NBC weapons and ballistic missiles and project offensive forces beyond their borders were destroyed or severely degraded. The RGFC was blinded and rendered ineffective as a maneuver force. Iraqi regular and popular forces were decimated and their will was broken, enabling even greater success of the coalition ground offensive.

However, one must be cautioned when postulating the decisive impact of air power on the objectives of ejecting Iraqi forces from Kuwait and restoring the legitimate government there. As one Iraqi tank battalion commander affirmed upon interrogation:

When the air operations started I had 39 tanks. After 38 days of the air battle I had 32 tanks. After 20 minutes against the 2d Armored Cavalry Regiment I had 0 tanks.²³

The striking videos of precision guided munitions verified the accurate, destructive power of sophisticated aircraft employed by a superb force. At the same time, they led many to magnify the impact of this destruction and its contribution to

accomplishing *all* of the strategic and operational objectives, especially its ability to bring Iraqi leadership to the negotiating table.

Communications between Baghdad and the KTO had been so successfully destroyed that field commanders could not report the true magnitude of the battlefield defeat. Until the Iraqi leadership was able to examine the total destruction of Iraqi forces in Kuwait (and Saddam's representatives were required to pass through coalition forces occupying southern Iraq to do so), the strategic, operational, and tactical operations of the coalition were not decisive.

What can one learn from the results of USCINCCENT's decision to prolong air operations? One observation is that it aided synchronization of the ground force operations by insuring all forces were present and the logistics support structure was in place before the initiation of the intensive, complex operations. Also, the enemy force attrition goals achieved by air operations were validated by successful ground tactical operations that destroyed Iraqi forces in detail through combined arms operations supported by air and naval forces. And, the decision to employ the concept of prolonged air operations contributed to fewer ground force casualties than predicted.

One can also observe that air power alone was not decisive. Moreover, the unique political, strategic, operational, and tactical components of the environment do not warrant a wholesale modification of AirLand Battle doctrine based on a single, short duration contingency operation conducted in this unique environment. The doctrine provided a basis upon which decisions to modify that doctrine for a specific, unique situation could be made and understood. Air operations had a unique impact in this contingency and operations were designed to maximize the contribution of this capability. Demanding a 50 percent attrition of the strength of select Iraqi divisions prior to committing ground forces was a unique application of air power.²⁴ Prolonging air operations and centralizing their day-to-day direction was an example of one decision that modified doctrine to a unique contingency situation. Instead of a template for future operations, Operation DESERT STORM

is a case study that validates the AirLand Battle doctrinal construct as well as the concept of adapting doctrine based on the unique situation.

Suspension of Offensive Operations.

A prince or general can best show his genius by managing a campaign exactly to suit his resources, doing neither too much or too little.²⁵

President Bush decided to suspend offensive operations as the first step to a negotiated cease-fire and resolution of the crisis in the Persian Gulf region. The decision was made as a result of the success of Operation DESERT STORM and after extensive consultation with military advisors in Washington and the theater commander, General Schwarzkopf. The rationale for this decision reveals a glimpse at the complexity of war termination and its relationship to political resolution of the conflict. The impact of this and supporting decisions reflects the demand for a long-term strategic vision and reaffirms the notion of ambiguity of each war termination issue. Moreover, it calls to mind the ever present fog of war associated with each termination issue.

The basis for the decision to suspend offensive operations was the coalition leaders' desires to limit friendly casualties and conduct the operations guided by the principle of proportional use of force. As Clausewitz states,

Since war is not an act of senseless passion but is controlled by its political object, the value of this object must determine the sacrifices made for it in magnitude and also its duration.²⁶

There was no longer a need to risk coalition lives unnecessarily when further gains were deemed to be only marginal. There was also a desire to prevent any wanton destruction of Iraqi forces since they had effectively been ejected from Kuwait and the legitimate Kuwaiti government restored. This was especially true if some Iraqi forces would be required to maintain the territorial integrity of the Iraqi state.

The decision to cease offensive operations also supported the more encompassing principle of basing the ultimate

resolution of this and future crises in accordance with the rule of international law and negotiation. Further offensive operations would have ignored this principle after the expressed military objectives supporting the political objectives of the coalition, by all available measures at the time, had been achieved. Because of the auspices under which the military actions were taken, the decision also supported the critical stature of the United Nations to be effective in the ultimate resolution of the crisis.

The operational impact of the decision was an incomplete encirclement of the remaining Iraqi forces. (See Figure 5.) This permitted the escape of some personnel and equipment. It is possible that some of these escapees included Iraqis responsible for atrocities committed during the occupation of Kuwait. The fragmented forces that escaped were subsequently reorganized and used by Saddam to quell

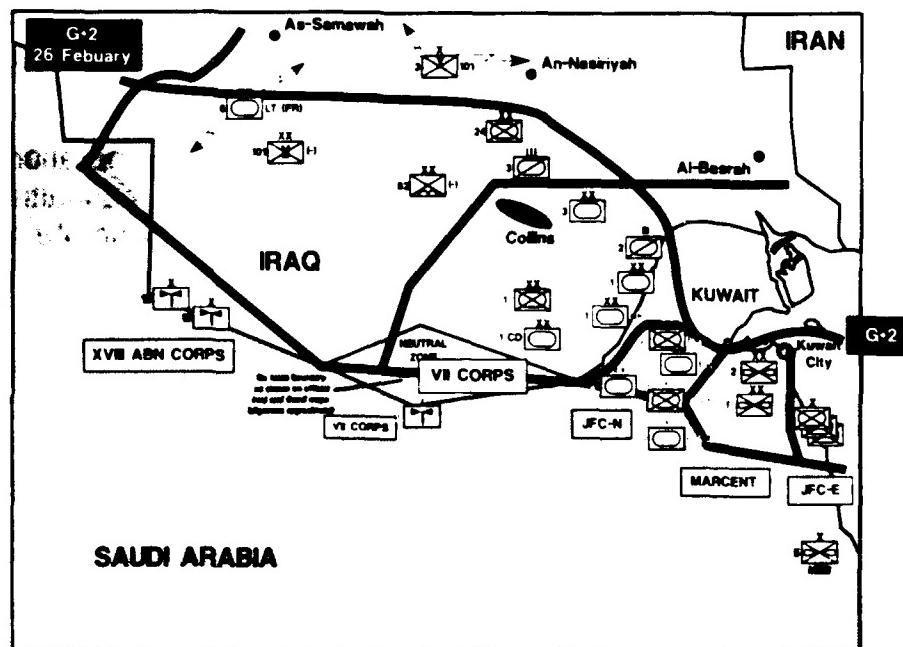


Figure 5. Coalition Disposition, G+2.

internal unrest created by Shi'a insurgents in the Basra area. They also provided additional security for Saddam's regime and prevented the fracturing of Iraq among Shi'a extremists, northern Kurds, and the dissident political forces in Iraq and abroad. However, the long-term instability that would have been created by such a fracture, as opposed to the removal of Saddam and his government, would have been contrary to the fourth political goal expressed by the coalition—promote regional stability. Moreover, long-term instability created by a fracture of the existing Iraqi state would further complicate the UN and coalition efforts to resolve the crisis through negotiation.

As a result of the decision to suspend offensive operations once the immediate military objectives had been accomplished, the principle of the rule of international law, the use of negotiation to resolve disputes peacefully, and the role of the United Nations were enhanced. It was also consistent with the theory of war as an extension of politics and highlighted the demanding role of the other instruments of power—political, diplomatic, and economic—to ultimately attain all of the political and strategic objectives of the coalition.

Rapid Withdrawal of Forces From Southern Iraq. When General Schwarzkopf suspended offensive operations in Operation DESERT STORM, coalition forces occupied extensive portions of southern Iraq. This temporary occupation was a result of the sweeping maneuver to outflank Iraqi positions in the Kuwaiti Theater of Operations. The occupation was not designed as a long-term proposition. Instead, planners determined early in the process that the destruction of the Republican Guard Force was the operational objective that would lead to the ejection of Iraqi forces from Kuwait and permit the restoration of its legitimate government. The planners also recognized that any occupation of Iraqi territory demanded specific obligations under international law and acceptable moral behavior among nation-states that would severely tax the occupying forces.²⁷

The decision to rapidly withdraw ground forces from southern Iraq was based on the desire to lessen the strain on U.S. ground forces by reducing their obligations under

international law while simultaneously reducing the exposure of those ground forces to the casualty producing effects of minefields, unexploded munitions, and incidental contact with trapped Iraqi forces withdrawing to Iraqi government-controlled territory. Coalition leaders also sought to prevent any accidental involvement of coalition forces in the civil unrest in the Basra area and to discourage the flight of the civilian population from Basra into coalition-controlled territory. Such flight would increase the displaced person population which coalition units would be obligated to assist.

In addition to the operational and legal aspects of the decision there were also political considerations. General Schwarzkopf deemed that the military occupation of the strategically insignificant southern Iraqi territory did not contribute further to the accomplishment of the strategic and political objectives of the coalition. Iraqi forces were already ejected from Kuwait and the border security of Kuwait was established to permit the restoration of the legitimate Kuwaiti government. Withdrawal from the Iraqi territory would tangibly demonstrate efforts to safeguard lives of U.S. and coalition personnel while living up to promises made to regional states, the Soviet Union, and UN members that the military objectives were limited. At this point, the greater political goals for regional stability and a "new order" based on international law and negotiated resolution of disputes were paramount.

Practically, the effects of the decision were rapidly evident. Ground forces were less exposed and more secure. Obligations under international law were limited to those already being attended to in Kuwait and along the close-in border region. The capability to meet those obligations, though extensive, was quickly assembled and the situation was stabilized. Just as importantly, the venue for resolution of the conflict shifted from the battlefield to the United Nations. Instead of warfare, a comprehensive cease-fire agreement and intrusive inspection regime would be employed to reduce the Iraqi threat and enhance stability in the region. Economic sanctions would remain to pressure Saddam's government and, hopefully, foment an internal change in the Iraqi regime.

These actions to enhance regional stability have reinforced the status of the United Nations as an international peacekeeping and collective security organization and forum where international law is paramount in settling disputes. The rapid withdrawal of coalition forces enhanced U.S. and its coalition partners' credibility in the eyes of the regional states which feared a long-term outside military presence of much larger proportion than had existed in the region in recent years.

Once again, ground forces played a significant role in this period of the conflict and their value cannot be understated. In addition to the massive destruction of Iraqi forces in ground combat, *the physical presence of ground forces represented a finality of defeat that can only be demonstrated by forces that occupy and secure sovereign territory*. Secondly, the ravages of war affect much more than the physical targets that are destroyed by air and naval forces or destroyed and captured by ground forces. Under the obligations of international law and reasonable moral behavior, there is a requirement to shelter and care for innocent civilians displaced by the conflict. Ground forces meet that obligation. In many respects, those caring actions have the greatest long-term effect on the resolution of the conflict and future stability. On the largest scale, this was evident following World War II in Europe and Japan. More recently, one can look to Grenada and Panama. The same was true in Operation DESERT STORM. In the long run, it is the presence of the individual on the ground that made the difference.

CONCLUSIONS

Throughout the crisis in the Persian Gulf, the political goals of the coalition remained paramount. As the national, coalition, and theater strategies shifted, the campaign plan adapted to insure that military action could properly support those political goals, as understood by the USCENTCOM planners, established at the very beginning. The campaign plan was developed through the deliberate planning system and was designed to provide the theater commander with the flexibility to meet the requirements of his theater strategy. It was further

designed to be adaptable to a coalition strategy that evolved throughout the crisis.

An analysis of the campaign in the Persian Gulf crisis reveals that its success was the result of many complex and diverse factors that came together at the unique time to produce superb results. Though this might seem to some as serendipity, it was the culmination of years of preparation, even though the original intent of that preparation focused on the vastly more capable Soviet threat. Nevertheless, it marked the validation of warfighting science and art that had been evolving for many years. It was significantly affected by the evolution of education, training, equipment, and doctrine occurring in the last 20-odd years. Rather than revealing many startling new "lessons" in modern warfare it validated concepts and technologies that were embedded in the people, organizations, equipment, and fighting doctrine previously tested in seminar rooms, training areas, and simulations.

What the world viewed as "arcade-like" weapons systems executing a brilliant "Hail Mary," was a well-educated, superbly trained, superiorly equipped force executing a sound doctrine employed within a campaign plan that was the product of many years of planning and exercises. It exhibited a sophisticated grasp of the political, strategic, operational, and tactical environments presented in the crisis. More importantly, it appreciated the linkages that had to be maintained among them. Furthermore, General Schwarzkopf understood the limitations of warfare and its contributory role in providing the conditions that would promote a lasting political resolution to the conflict. Finally, the decisions made prior to and during the execution of the campaign recognized the flexibility and adaptability of the people, organizations, equipment, and doctrine. Though the long-term effects of some of the decisions may be troublesome,²⁸ they were designed to maximize the capabilities of the force at that unique point in time and were made with an understanding of the risks involved.

Therein lies one of the major strategic lessons of the conflict. The Gulf War was unique and does not merit wholesale changes in the doctrine that made the campaign successful. In this case, drawing conclusions that would spark

radical change could be just as disastrous as the evolution and development over the last 20 years was successful. Moreover, it was that sound evolution of education, training, equipment, and doctrine based on the complementary visions of many professionals over the last three decades that provided the ingredients for success in the Operation DESERT SHIELD/STORM campaign.

ENDNOTES

1. In *On Strategy II*, Harry Summers discusses the post-Vietnam era introspection performed by the military profession. One result of that introspection was the re-emphasis on leader education and training as well as the establishment of the National Training Center for unit training under simulated combat conditions. Very little has been written specifically about the development of the Third U.S. Army. However, many issues concerning Reserve Component organization and training have been discussed in a number of articles and studies. Several of these issues regarding Third U.S. Army are discussed in greater in Appendix A.

2. Though a worldwide terrorist campaign did not develop to permit Saddam to realize his desired political results, incidents did occur in Egypt, Turkey, and Saudi Arabia. It appears that U.S. policy throughout the conflict was to play down any reported terrorist activity and take extraordinary steps avert terrorism throughout the coalition.

3. The U.S. strategy was to create an international coalition and then lead that coalition in developing a comprehensive strategy that all could support. This lead and support strategy was also employed within the parallel command structure discussed later in this report.

4. "Saddam Hussein's Three-ring Circus," *US News and World Report*, September 10, 1990, p. 32.

5. President Bush's speech to the nation on November 8, 1990, announcing additional troop deployments to Saudi Arabia.

6. Previous studies recognized the shadow of Israel that was cast across the entire region. It was believed that it would affect nearly all contingency operations in the region and CENTCOM planners considered this accordingly. Planners also acknowledged the proliferation of ballistic missiles and NBC weapons and their capability to involve Israel in any conflict in which the United States might become involved.

7. On April 3, 1991, the United Nations Security Council adopted Resolution 687 which established the conditions for a cease-fire. Saddam

accepted those conditions on April 6th and the cease-fire was formally proclaimed on April 10, 1991.

8. In accordance with the borders set 1961, when Britain granted Kuwait its independence, Bubiyan and Warba Islands along with the majority of the Rumailah oilfields were within Kuwait's international boundary. The boundaries were immediately disputed and required deployment of nearly 6000 British troops to guarantee them.

9. Most analyses to date refer to the four phases of Operation DESERT STORM. However, the author wrote and participated in the writing of an "end state" paper, the theater strategy, and an overall theater campaign plan. Though none of these documents were formally published as such, they served as internal headquarters' documents that guided policies and actions throughout the Persian Gulf War and the post-conflict period. They guided the development of the detailed operation plans (COMBINED DEFENSE OF SAUDI ARABIA, DESERT STORM, SECURITY AND RESTORATION OF KUWAIT) and their supporting deception plans and psychological operations plans that were published.

10. President Bush's press conference on August 8, 1990.

11. Though the campaign was basically executed as planned, it should be noted that it was a very complex process and the "fog of war" was ever present. This is particularly true of the transition from offensive operations to post-conflict civil-military operations. Less emphasis was placed on this phase and confusion resulted before USCENTCOM's Task Force Freedom took charge of providing emergency services in Kuwait and southern Iraq.

12. Reports from sources inside Kuwait indicated that lower level leadership, regular Army forces, and popular forces initially thought they were invading Israel, not their Arab brothers in Kuwait.

13. Draft OPLAN 1002-90 was executed as Operation DESERT SHIELD and was one of a family of contingency plans developed by USCENTCOM during General Schwarzkopf's previous 19 months of command.

14. On August 1, 1990, WATCHCON 1 (Watch Condition 1) was declared initiating a DoD-wide focus of assets to detect indications of activity that might affect U.S. security and provide warning of impending threats to U.S. security during the growing crisis.

15. Operation EARNEST WILL involved the reflagging of Kuwaiti tankers and naval escort operations in the Persian Gulf. It was the previous large contingency in the region prior the Persian Gulf War.

16. Internal Look 90, a USCENTCOM command post exercise, was conducted at the Joint Warfare Center, Eglin AFB, Florida from 16-20 July 1990. The exercise used the 1002-90 scenario to exercise its staff and components.

17. Because of the size of the combat force required for OPLAN 1002-90, the 200k call-up was insufficient to provide the required combat support and combat service support forces to sustain the operation.

18. Transportation planners traditionally worked with estimates of approximately 766 C-141 plus 24 C-5 sorties for an Airborne Division. It actually required approximately 1200 C-141 equivalent and 24 C-5 sorties.

19. During the early days of the contingency, there was extreme sensitivity to the size of the forces being deployed to the theater. This was due to limits of the President's 200k call-up authority and the impact that additional mobilization might have on the nation. Consequently, steps were taken to optimize the force. Particular emphasis was placed on maximizing immediate combat capability, especially anti-armor forces. The decision caused all CS and CSS forces to be closely scrutinized and some functional areas minimized.

20. Joint Pub 3-0, *Joint Operations*, Washington, DC, January 1990.

21. W.G.F. Jackson, *The Battle for North Africa 1940-43*, New York: Mason/Charter, 1975, p. 469.

22. LTG Calvin A.H. Waller, DCINC, USCENTCOM, in an interview conducted at the Army War College on April 22, 1991 and *Triumph Without Victory: The Unreported History of the Persian Gulf War*, New York: Times Books, 1992, p. 268.

23. From the interrogation of Iraqi POW, tank battalion commander, captured during the Battle of 73 Easting.

24. From an interview with CENTCOM staff officer. The precise criteria was: (1) 50 percent attrition of the forward Iraqi divisions defending on the Kuwait-Saudi Arabia and Iraq-Saudi Arabia borders; (2) 50 percent of armored vehicles in the Iraqi divisions comprising the tactical and operational reserves including the Republican Guards; (3) 90 percent of the artillery (especially chemical capable) within range of the initial breaching sites.

25. Karl von Clausewitz, *On War*, ed. Michael Howard and Peter Paret, Princeton, NJ: Princeton University Press, 1976, p. 177.

26. *Ibid.*, p. 92.

27. It should be noted that there is significant divergence of opinion and confusion on these points. The result was a series of disconnects in planning for post-conflict operations. For a detailed examination of a somewhat different interpretation see John T. Fishel, *Liberation, Occupation, and Rescue: War Termination and Desert Storm*. Carlisle Barracks, PA: Strategic Studies Institute, 1992.

28. As described previously, the theater logistics organization was *ad hoc*. GEN Schwarzkopf along with the Army leadership decided not to activate the doctrinal organization within the Third Army. Many people in both the Active and Reserve Components believe those decisions appeared to abandon the purpose of the Total Army and CAPSTONE programs. Likewise, it broke the bonds of trust developed within the auspices of those programs. See the detailed discussion in the appendix.

APPENDIX

DECISIONS THAT DEVELOPED THE FORCE

Because of the contribution of U.S. forces to the accomplishment of the coalition objectives, several decisions not directly related to the campaign in the Persian Gulf War nevertheless had a significant impact on its outcome. From the U.S. perspective, and particularly the U.S. Army's perspective, the decisions to re-energize the professional education of officers and NCOs; to establish the National Training Center (NTC), and subsequently the Combined Maneuver Training Center (CMTC) in Europe with its unique training system; and to assign U.S. Third Army as the Army component command for USCENTCOM were key factors in a successful military outcome to the crisis.

Officer and NCO Professional Education.

As the leaders of the post-Vietnam era Army pondered the future, the decision to increase the investment in its people chartered the course of professional development for officers and noncommissioned officers that produced the quality force of the Persian Gulf War. The key was an investment strategy focused on professional education and training. Its hallmarks were the Officer and NCO Education System based on a developmental philosophy that emphasized intellectual and personal growth designed to produce qualified, thinking, adaptable leaders. Each leader would possess the knowledge, attitude, skills, and habits that would allow the leader and the institution to realize their full potential in war and peace. A school system requiring qualification at designated periods of growth would provide the knowledge to understand the profession and the environment in which it was practiced. The program of training and exercises conducted at the NTC, CMTC, and other joint and combined venues, would provide

the laboratories to yield the practical experience. The decisions of the 1970s and 1980s were based on a series of studies evaluating NCO and officer professional development and education.¹ The resulting system of complementary schools established a coherent approach to educating the officer and NCO at the beginning of each major growth period of the officer's or NCO's career. On the average, an officer would spend about 1 year in every 4 in school; an NCO only slightly less frequently at 1 year out of every 5-6.

Lieutenants were introduced to the duties and responsibilities of their branch of service in the Basic Course and returned 3 or 4 years later to prepare for command of companies, troops, and batteries as captains. The Command and General Staff College (CGSC) remained the centerpiece where AirLand Battle doctrine provided the concepts and terminology for tactical operations up to corps level. Colonels and lieutenant colonels destined for command and staff positions at the highest levels of the Army studied military strategy and learned about the environment in which the military institution resides at the senior service colleges of the Army, Navy, and Air Force, as well as at the National Defense University consisting of the National War College and the Industrial College of the Armed Forces.²

Within this framework three key schools were inserted to make the education more robust. The first of these is the Combined Arms and Services Staff School (CAS³). It is designed to teach the fundamentals of staff operations and concentrates on the skills of the battalion staff officer. However, it is more than that. It is taught by former battalion commanders fresh from the command experience and the course also serves as an exercise in molding a working staff. A significant aspect is the small group instruction that provides the opportunity for strong mentorship of each student under the experienced tutelage of a senior officer.

Establishing the School for Advance Military Studies (SAMS) signified a rebirth in the study of the operational level of war with its unique art and science. Selected CGSC volunteers are retained for a second year of in-depth study. This school is designed to reestablish the understanding of

linkages between strategy and tactics through the study of the theory of war and historical campaigns, then to applying that knowledge to contemporary problems in simulation exercises. Small seminars with experienced seminar leaders provide the forum for in-depth study. Obligatory assignments as division and corps level plans officers form an internship for the students to immediately apply their knowledge. In addition to the CINC's planning group at USCENTCOM, SAMS graduates occupied key positions on every staff from USCENTCOM J-5 through Army division level.

The final element of the triad of educational renaissance is the Army War College's Advanced Warfighting Studies Program (AWSP). It is built on the reintroduction of campaign planning into the core curriculum and is akin to the SAMS program for selected senior service college students during their regular year.

By virtue of this officer education system, leaders were developed as commanders and staff officers. The intellectual renaissance provided officers that not only understood the AirLand Battle doctrine they were executing, but also the theory and concepts underlying the doctrine that permitted them to adapt the doctrine to the unique contingency environment of DESERT SHIELD and DESERT STORM.

The Noncommissioned Officer Education System (NCOES) provided the formal school structure for the NCO corps. Attendance at the Primary Leadership Development Course (PLDC), Basic Noncommissioned Officer Course (BNOC), and the Advanced Noncommissioned Officer Course (ANOC), preceded advancement to sergeant, staff sergeant, and platoon sergeant or sergeant first class. The U.S. Army Sergeants Major Academy (SMA) qualified senior sergeants for the highest NCO positions in the Army. Local commanders selected soldiers to attend PLDC and BNOC while centralized Department of the Army selection boards selected ANOC and SMA attendees. The NCOES assisted in restoring the NCO corps as the "backbone of the Army" responsible for revitalized individual and small unit training programs. NCOs trained their men to master the soldier skills that were then tested by written and actual performance. Here, the individuals and small unit

building blocks of the DESERT SHIELD/STORM force were formed and tempered. Within the systems approach to training that developed during this period, they were the keys to quality force that would be forged through the training experiences of larger exercises, but especially the NTC and CMTC.

The National Training Center.

The visionary decision in 1977 establishing a National Training Center affected every facet of the Army's preparation for war.³ Not only does it provide a laboratory for tactical units to develop and hone their warfighting skills to a level never before attained in peacetime, but it institutionalized an approach to educate, train, and evaluate that permeated every aspect of the profession.

The National Training Center (NTC) was established to permit the Army to train in peacetime to master the complexities of modern warfare. The objective was to understand the Army's complicated warfighting systems and exercise them in an environment of simulated wartime stress against a highly skilled opposing force. The NTC inaugurated a systems approach that proved successful at both understanding how the myriad of force capabilities are synchronized and focused to achieve a desired result, as well as improving individual and unit capabilities by systematically executing, evaluating, reviewing, and correcting each essential task. Additionally, it provided a means to test AirLand Battle Doctrine in the time and space conditions of the modern battlefield while exercising modernized equipment, demonstrating competence, and building confidence in the force.

The effect of this strategic decision was to create conditions for operational and tactical success. The methods validated at the NTC became the model for education and training throughout the Army. The use of after action reviews and the renewed emphasis on mentorship to spark continuous improvement are evident in all education and training endeavors throughout the Army. These methods sparked the development of seminars and small groups for educating

officers and NCOs in service schools and academies. Finally, they validated the value of technology and simulations for meeting the challenges of educating and training individuals and units for modern warfare.

The value of the NTC was confirmed many times during the Persian Gulf War. During Operation DESERT SHIELD, the methods employed at the NTC were used to prepare and train the Army as a member of the Joint Force and multinational coalition. When the decision was made to prepare for offensive operations, the methods and techniques employed at the NTC were used to integrate and train the force that included European-based U.S. units, NATO partners, and coalition members. Battle Command Trainer Program assets, an outgrowth of the NTC concept, were used to prepare the corps staffs. When Operation DESERT STORM was executed, its success was the culmination of a decade of learning, training, and experience that began with the decision to develop the National Training Center.

The greatest impact of the decision, however, is what it portends for the future. It represents an institutionalized, cost effective means of maintaining a ready, professional army and the empirical basis for expanding simulated training using the concepts and methods validated at the NTC. Individuals and units will be trained to employ warfighting systems as the tools of their profession, new doctrinal concepts will continue to be developed and tested, and modernized equipment will be exercised in an environment of proven success.

Third U.S. Army as USARCENT.

Designating 3rd U.S. Army as the component command for USCENTCOM represented the convergence of several strategic decisions made over the previous decade. Within the framework of the national policy and strategy in the region, the decision reinforced the Army's commitment to the Total Army concept, the CAPSTONE program, and the evolving AirLand Battle doctrine. By providing a dedicated organization to fulfill the responsibilities of both the component command and the Theater Army, the Army demonstrated its resolution to meet

its obligations to any Joint Force that would be employed to execute war plans in the region. However, Third U.S. Army was a hybrid organization with the bulk of its units in the Reserve Components (RC). To planners at JCS and CENTCOM, the decision to organize this way confirmed that the vital and highly volatile region possessed a significantly lower priority than either the European centerpiece of the nation's strategy or the Pacific rim.

The effects of the decision were seen throughout the Army's participation in the Persian Gulf War. Deploying the bulk of the theater support units comprising organizations in echelons above corps-level required a partial mobilization decision and associated reserve call-ups—a decision that was delayed until November 1990.⁴ Moreover, the structuring decision placed the bulk of Third Army forces—Theater Army command and control elements—in the Reserve Components. Consequently, there was reluctance on the part of the Active Component senior leadership to activate this key part of the hybrid organization—the doctrinal Theater Army organized to support joint and, in this case, coalition forces in the theater. The reason for this reluctance has been attributed to the Active Component leadership's evaluation of Reserve Component units' ability to deal with the complexity of modern logistical systems, combined with the experience of the AC leaders in training and evaluating the personnel, especially the leadership, within the RC.

The apparent distrust of the Reserve Component leadership and command and control organizations of the doctrinal Theater Army by the Active Component leadership led to the development of an *ad hoc* organization. This point became evident when staff efforts to develop the doctrinal Theater Army organization, the foundation of USARCENT's organization, met resistance at the highest level of the Third Army and Army service staffs. Consequently, the *ad hoc*, piecemeal approach to the problem stretched the logistics management and operations personnel to the limits of their capacities. It was a near superhuman effort for this spartan organization to conduct logistics support operations within the management systems available. Commodities were managed

and distributed through the "brute force" approach employing mass quantities and herculean transportation efforts. Focused management of critical commodities was nearly impossible and inventory control was a nightmare.⁵ Both logistics operations and commodity management were key to a push sustainment system, especially when both strategic and theater transportation systems were operating at maximum capacity. The stress of the tasks was evident on both personnel and material after only 42 days of a campaign that was forecasted to be significantly longer.

More importantly from a long-term perspective, the strategic decision to forego the activation of the doctrinal Theater Army demonstrated a lack of commitment to previous strategic decisions that created the structure. The hybrid organization of the Third Army was created purposely for the situation encountered in the Gulf War. The CAPSTONE program provided the opportunity for the Active Component to participate in the training and readiness of the organization. The Active Component leadership pronounced it ready and capable of performing its assigned missions and functions. Through its lack of confidence in the Reserve Component leadership, the Army further demonstrated a lack of confidence in the individuals that form a powerful segment of the Total Army. Unfortunately, the rifts created by fallout from that decision threaten to color many other training and competency issues of all Reserve Component units, their leadership, and the development of the future force structure of the Total Army.

APPENDIX ENDNOTES

1. Several major studies were completed during the two decades preceding the Persian Gulf War and resulted in several documents that describe the Officer and NCO education systems: *Review of Army Officer Educational System*, Washington, DC: HQDA, 3 vols., December 1, 1971; *Education of Officers Under the Officer Personnel Management System*, Ft. Monroe, VA: U.S. Army Training and Doctrine Command, 2 vols., March 14, 1975; *Review of Education and Training for Officers (RETO)*, Washington, DC: HQDA, 5 vols., June 30, 1978; and *Professional Development of Officers Study*, Surveys, Washington, DC: HQDA, April 1985, and DA Pamphlet 600-25, *U.S. Army Noncommissioned Officer Professional Development Guide*, Washington, DC: HQDA, April 1987.

2. The author recognizes that the Armed Forces Staff College is also a part of the National Defense University. However, its focus is on educating joint specialty officers in preparation for joint assignments and it is not a military education level 1 granting institution like the other colleges mentioned.

3. The NTC initiated regular training rotations in 1980.

4. Executive Order 12727 ordered 40,000 reservists to active duty on August 18, 1990; however, partial mobilization followed several interim decisions that increased the authorization and extended the duration. A Presidential Order was issued on January 18, 1990, authorizing partial mobilization as set forth in Section 673, Title 10. Partial mobilization was a planning assumption for OPLAN 1002-90. It was required to provide the additional forces and transportation assets to deploy the enlarged force demanded by Operation DESERT STORM.

5. Supply accountability problems are documented throughout *Operation DESERT STORM Sustainment*, published by ODCSLOG. Personal accounts of current AWC students are replete with examples of the shortcomings of the logistical organization when it came to locating and providing a specific item in critically short supply in the forward forces. An interview with one DISCOM commander revealed that his personal intervention was frequently required to obtain supplies that should have been provided routinely by the sustainment system. It was not unusual for representatives of forward units to return to rear areas to locate, secure, and transport sorely needed items.

U.S. ARMY WAR COLLEGE

**Major General William A. Stofft
Commandant**

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